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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/555,140	08/03/2000	Gunnar-Marcel Klein	178/48916	3885

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Evenson McKeown Edwards & Lenahan  
Suite 700  
1200 G Street NW  
Washington, DC 20005

EXAMINER

SAVAGE, MATTHEW O

ART UNIT	PAPER NUMBER
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1723

12

DATE MAILED: 01/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicati n No. 09/555,140	Applicant(s) KLEIN ET AL.	
	Examiner Matthew O Savage	Art Unit 1723	

-- Th MAILING DATE of this c mmunication appears n th cov r sh et with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2001 .
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13, 15-22 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) 25-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 15-22, and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13,15-22, and 35 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to claims 13 and 35, the specification fails to adequately disclose how to make the filter element having the recited weight per unit area values of the inflow and discharge layers since the thickness or density of the inflow and discharge layers has not been disclosed.

The specification fails to adequately disclose the methods of joining the filter layers as recited in claims 18-20.

Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The concept of the cellulose containing filter layers including up to but not including 50% of synthetic fibers lacks basis in the original specification and is considered new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13, 15-22, and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Concerning lines 8-9 of claim 13 and line 9 of claim 35, it is unclear as to what type of paper a "predominantly cellulose containing filter paper" implies.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 15-19, 21, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kadoya.

With respect to claims 13 and 35, Kadoya discloses a filter element (see FIGS. 1-6) having a plurality of layers 5, 2 joined together (e.g., by thermal fusing, see lines 1-4 of col. 3), the successive layers in the flow direction exhibiting an increasing degree of separation and a decreasing degree of storage capacity (see lines 5-38 of col. 3), the inflow layer 5 being comprised of synthetic fibers of a nonwoven web (e.g., rayon and polyester, see lines 67-68 of col. 2) and the discharge layer 2 being comprised of a predominantly cellulose containing filter paper (e.g., linter and pulp, see lines 65-66 of

col. 2). Kadoya fails to specify the non-woven web as being "melt-blown", however, such a limitation relates to a method of making a non-woven web and carries no patentable weight in an apparatus claim. Kadoya fails to specify the recited weight per unit area values of the inflow and discharge layers, however, such modifications would have been obvious in order to optimize the degree of separation of the layers for a particular filtering application.

As to claim 15, Kadoya discloses at least three medium layers joined together as recited in the claim (see FIGS. 3-6).

Regarding claim 16, Kadoya discloses an intermediate medium layer 5b (see FIGS. 3-6).

Concerning claim 17, Kadoya discloses a star folded filter element (see FIG. 7).

With respect to claim 18, Kadoya discloses layers of filter media that are welded together (see lines 1-4 of col. 3). The limitation of the layers being welded by ultrasound relates to a method of making a filter and carries no patentable weight.

Claim 19 relates to a method of making a filter element and carries no patentable weight.

Regarding claim 21, Kadoya discloses a cellulose containing filter layer including up to but not including 50% synthetic fibers (e.g., rayon fibers, see lines 65-68 of col. 2).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadoya as applied to claim 13 above, and further in view of JP 63-278517.

Kadoya fails to specify gluing the layers of filter media with a powdered adhesive as recited in claim 20, '517 discloses using a powdered adhesive in the form of polyethylene powder for gluing together layers of an analogous filter element and suggests that such an arrangement provides a secure bond between the layers. It would have been obvious to have modified the filter element of Kadoya so as to have included a powdered adhesive to glue together layers of filter media as suggested by '517 in order to provide a secure bond between the filtering layers.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kadoya as applied to claim 21 above, and further in view of Pall '881 or Girondi.

Kadoya fails to specify the cellulose containing filter layer as including polyester or glass fibers. Both Pall (see lines 16-26 of col. 3) and Girondi (see lines 65-67) teach adding polyester or glass fibers to cellulose containing paper and suggests that the fibers optimize the filter material for a particular application. It would have been obvious to have modified the cellulose containing layer so as to have included glass or polyester fibers as suggested by Pall or Girondi in order to optimize the filter for a particular application.

Applicant's arguments filed 12-20-01 have been fully considered but they are not persuasive.

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Applicant argues that the limitations of claim 21 is not new matter since the limitations have basis in original claim 11, however, it is held that claim original 11 cannot be relied upon for support since it was an improper multiple dependent claim.

It is argued that one of ordinary skill would know how to make the filter as recited in instant claims 13 and 18-20, however, the rejection is being maintained since the instant specification provides no details concerning the thickness and density of the layers required to make the filter as recited in claim 13, and no details concerning the methods of joining the layers as recited in claims 18-20, or evidence to effect that such details are well known in the art.

Applicant's argument that Kadoya fails to specify the limitation of the synthetic web as being melt blown as recited in claims 13 and 35 is noted but fails to apply since such a limitation relates to a method of making a filter and carries no patentable weight in an apparatus claim. Applicant's argument that Kadoya fails to disclose the recited weight per unit area values of the layers as recited in claims 13 and 35 is noted, however, such limitations are considered obvious in order to optimize the filtration properties of the media for a particular application.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

This application contains claims 25-34 drawn to species nonelected with traverse in Paper No. 8. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew O Savage whose telephone number is 703-308-3854. The examiner can normally be reached on Monday-Friday, 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda W. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3602 for regular communications and 703-305-3599 for After Final communications.



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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*M. Savage*  
Matthew O Savage  
Primary Examiner  
Art Unit 1723

mos  
January 16, 2002